

## WHAT IS CLAIMED IS

1. A system for providing a user with water at a desired temperature comprising:
  - a. a piping system that includes a hot water pipe and a cold water pipe;
  - b. a pump coupled to said piping system; and
  - c. a water delivery device coupled to said piping system and to said pump and operative to allow circulation of water from said hot water pipe to said cold water pipe prior to delivery of water at a desired temperature to the user, whereby said circulation purges said hot water pipe of any cold water contained therewithin.
2. The system of claim 1, wherein said circulation is induced by said pump.
3. The system of claim 1, wherein said operativeness to allow circulation of water from said hot water pipe to said cold water pipe prior to delivery of water at a desired temperature to the user is facilitated by a circulation mechanism.
4. The system of claim 3, wherein said circulation mechanism is internal to said water delivery device.
5. The system of claim 3, wherein said circulation mechanism is external to said water delivery device.
6. The system of claim 3, wherein said water delivery device includes:
  - i. a hot water inlet coupled to said hot water pipe,
  - ii. a cold water inlet coupled to said cold water pipe, and
  - iii. a common outlet operative to receive hot and cold water flows from said hot and cold water inlets and to facilitate said water delivery,and wherein said circulation mechanism further includes
  - iv. a hot water inlet valve and a cold water inlet valve respectively coupled to and operative to control water flow through said hot and cold

water inlets,

- v. at least one temperature sensor operative to sense water temperature, and
- vi. a controller responsive to inputs from said at least one temperature sensor and operative to actuate said hot and cold water inlet valves and said pump to obtain said water circulation and delivery.

7. The system of claim 6, further comprising an input/output device configured to provide input parameters to said controller and to receive and display output indications from said controller.

8. The system of claim 7, wherein said input parameters include a parameter selected from the group consisting of a set temperature, a set use time, a set break time, a water pressure and a combination thereof.

9. The system of claim 7, wherein said output indications are selected from the group consisting of a temperature indication, a time indication and a water pressure indication.

10. The system of claim 1, further including an optional proximity sensor coupled to said water delivery device and operative to activate said water delivery through a proximity effect.

11. A method for delivering water to a user at a desired temperature comprising the steps of:

- a. providing a piping system that includes a hot water pipe and a cold water pipe;
- b. providing a water delivery device coupled to said piping system and configured to allow internal circulation of water from said hot to said cold pip, said water delivery device having at least one outlet;
- c. bringing the water temperature near said at least one outlet to the desired

temperature by purging said hot water pipe of any water having a temperature lower than said desired temperature, said purging including transferring of said lower temperature water through said water delivery device to said cold pipe; and

d. delivering water at the desired temperature to the user through said outlet.

12. The method of claim 11, wherein said purging includes actuating a pump coupled to said piping system and said water delivery device, said pump driving said internal circulation, and wherein said step of delivering includes stopping said pump, thereby stopping said internal circulation.

13. The method of claim 12, further comprising the step of sensing a water temperature near said outlet and wherein said actuating and said stopping are done in response to said temperature sensing.

14. The method of claim 11, further comprising the step of providing a controller operative to control said bringing of the water temperature near said at least one outlet to the desired temperature.

15. The method of claim 11, further comprising the step of providing a proximity mechanism coupled to said water delivery device and operative to effect said delivering.

16. A water delivery device comprising:

- a. a hot water inlet coupled to a hot water pipe;
- b. a cold water inlet coupled to a cold water pipe;
- c. a first outlet operative to receive hot and cold water flows from said hot and cold water inlets and to facilitate water delivery to a user; and
- d. a circulation mechanism operative to allow circulation of water from said hot water pipe to said cold water pipe prior to delivery of water at a desired temperature to the user through said first outlet.

17. The water delivery device of claim 16, wherein said circulation mechanism

includes:

- i. a hot water inlet valve and a cold water inlet valve respectively coupled to and operative to control water flow through said hot and cold water inlets,
- ii. at least one temperature sensor operative to sense water temperature, and
- iii. a controller responsive to inputs from said at least one temperature sensor and operative to actuate said hot and cold water inlet valves to obtain said water circulation and delivery.

18. The water delivery device of claim 16, wherein said circulation mechanism is internal to the device.

19. The water delivery device of claim 16, wherein said circulation mechanism is external to the device.

20. The water delivery device of claim 17, further comprising a mechanism for inputting parameters to said controller and for outputting indications from said controller.

21. The system of claim 20, wherein said input parameters include a parameter selected from the group consisting of a set temperature, a set use time, a set break time, a water pressure and a combination thereof.

22. The system of claim 20, wherein said output indications are selected from the group consisting of a temperature indication, a time indication and a water pressure indication.